KUZNETSOV, Ye.V.

CARD 1 / 2 PA - 1738

SUBJECT USSR / PHYSICS
AUTHOR BERESTECKIJ,V.B., KUZNECOV,E.V.
TITLE The Diffraction Scattering of Energy-Rich Photons by Nuclei.
PERIODICAL Žurn.eksp.i teor.fis, 31, fasc.4, 723-725 (1956)
Issued: 1 / 1957

The properties of a nucleus with respect to energy-rich photons (at $kR \ll 1$, where k denotes the wave number of the photon and R - the radius of the nucleus) can be characterized by a complex refraction index: $n + i\varkappa/k$, where $n \sim 1$ and $\varkappa R \ll 1$ applies. The value of the absorption coefficient $\varkappa$ can be expressed on the basis of general formulae by the experimentally known cross section σ_c of the photoproduction of mesons on nuclei: $\varkappa R = 3\sigma_c^2 / 4\pi R^2$. The existence of an absorption must lead to an elastic scattering of photons. By using the general diffraction relations for the semi-transparent nuclei it is without difficulty possible for the cross section σ_s of elastic scattering to obtain the expression $\sigma_s = 9\sigma_c^2/(32\pi R^2)$. The amplitude of scattering in a small angle θ is $f(\theta) = ik\varkappa \int_0^R J_0(k\theta\sqrt{R^2 - s^2})\, s^2\, ds$ and herefrom we find for the differential cross section: $d\sigma_s/do = (1/2)\sigma_s (kR)^2 \Phi^2(kR\theta)$, $\Phi(x) = x^{-2}(x^{-1}\sin x - \cos x)$. In accordance with experimental data $\sigma_c \sim 10^{-28} A\ cm^2$ applies in the case of photon energies of the order 300 MeV. Here the cross section of the elastic

Žurn.eksp.i teor.fis,31,fasc.4, 723-725 (1956) CARD 2 / 2 PA - 1738

scattering f must have the following values: $\sigma_s = 10^{-30}\ cm^2$ for Be, and $\sigma_s = 0{,}9.10^{-28}\ cm^2$ for U.
Next, diffraction scattering is compared with the scattering of photons by a COULOMB field. The cross section σ_γ of scattering by a COULOMB field at $E \gg cm^2$ has the value $\sigma_\gamma = 8{,}5.10^{-35} Z^4\ cm^2$. Thus, the ratio σ_s/σ_γ is modified from 50 for Be to 10^{-2} for U, i.e. in the case of heavy nuclei the diffraction scattering is considerably less efficacious than the coherent scattering by the charge. Nevertheless, this effect must be recognizable because of a different angular distribution. Corresponding to the formula $d\sigma_s/do = (1/2)\sigma_s (kR)^2 \Phi^2(kR\Theta)$ diffraction scattering is effective in the case of the angles $\Theta_s \sim 1/kR$, whereas scattering by the COULOMB field is concentrated within the domain $\Theta_\gamma \sim cm^2/E$. Therefore, the differential cross sections for U at $\Theta = 0{,}015$ are equal at E = 300 MeV. $d\sigma_\gamma/do$ diminishes rapidly, but $d\sigma_s/do$ in this domain retains the constant value of $\sim$ 0,8 millibarn ($\Theta_s = 0{,}09$).

INSTITUTION:

the stress caused by the plunger is transmitted to the water contained in the limiter, and from there to the FREON-13 in the bubble chamber. The limiter regulates the limits within which pressure in the chamber is modified, it causes the pressure curve to assume the appearance of a rectangular wave. The upper and lower limit value is determined by the pressure P_s and P_i in the left and right part of the limiter respectively. P_s is 1,5 or twice as high as the pressure of the saturated vapors of FREON-13, and P_i is lower by about 10 atm than the pressure of the saturated vapors. The ratio between the duration of compression and that of expansion can be changed by changing the quantity of FREON-13 in the chamber or the quantity of water in the limiter. The pressure curve recorded by means of a capacity manometer was observed on an oscillograph. The bubbles cannot conglomerate during compression, they rise to the top, and then conglomerate in a trap which is filled with cooled solid carbonic acid. An attached photograph shows traces which were recorded with the chamber. When the chamber was set up in the cellar of a two-storeyed house, an average of 5 cosmic rays per minute was observed. A rough estimate of the degree of efficiency furnishes the value of 0,1.

INSTITUTION:

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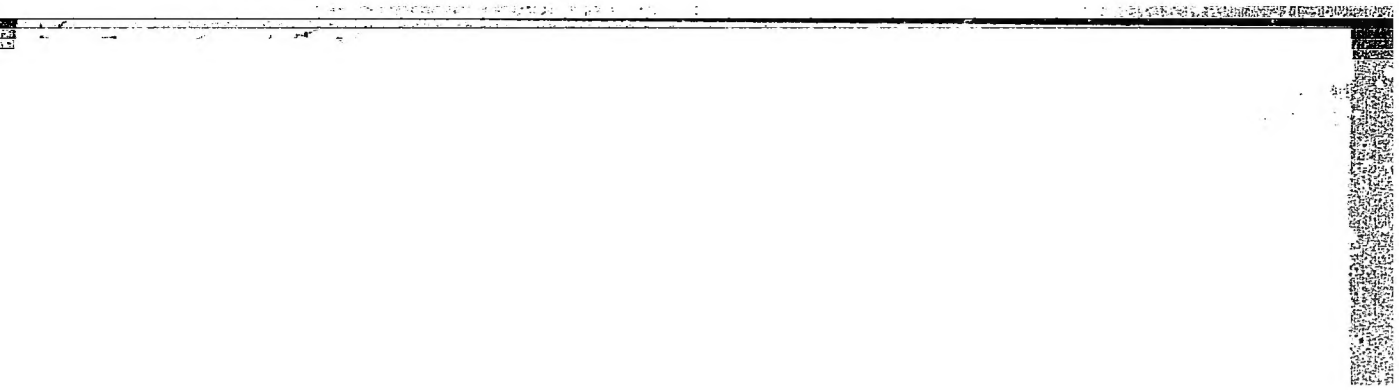

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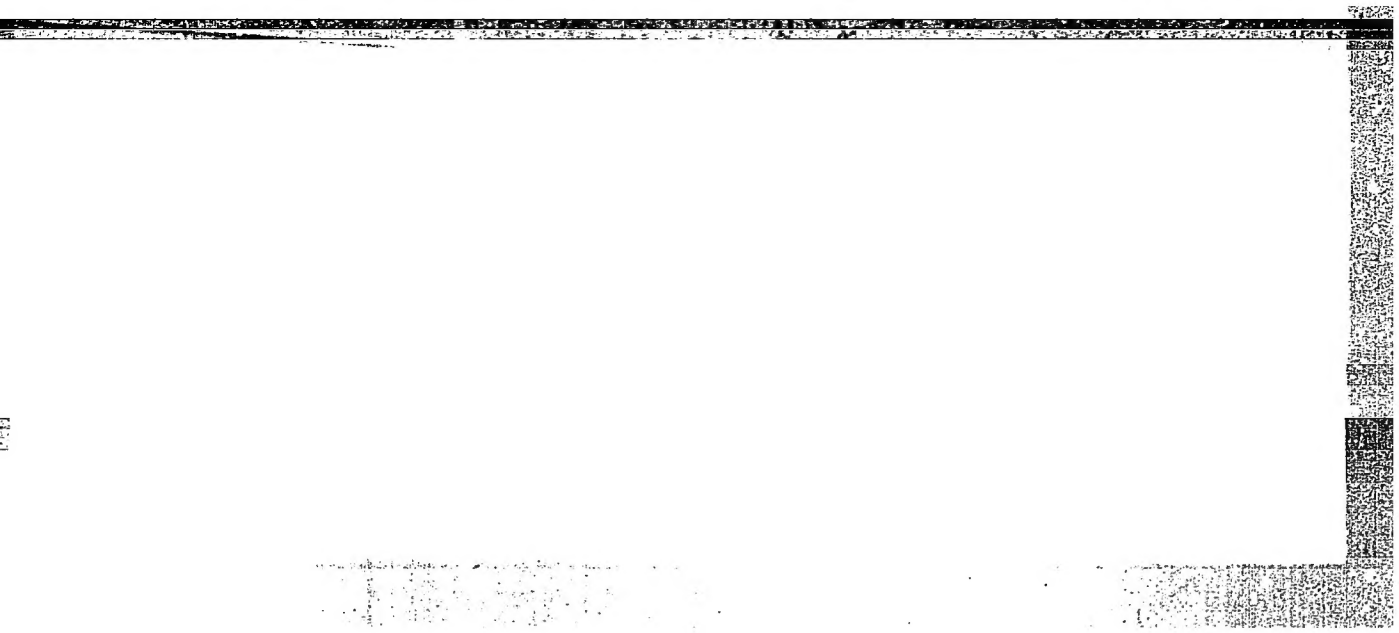

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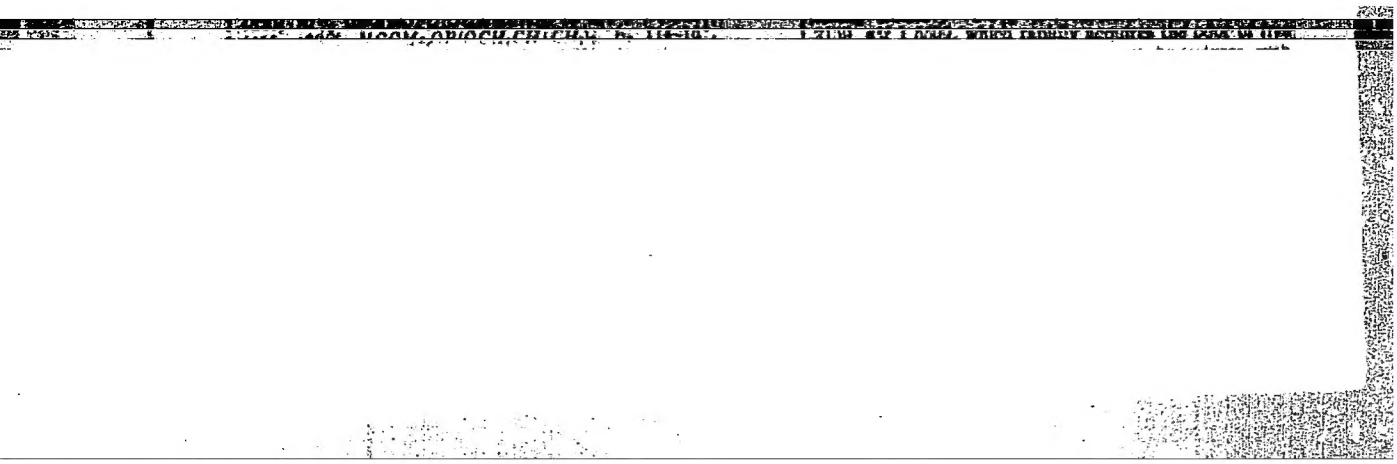

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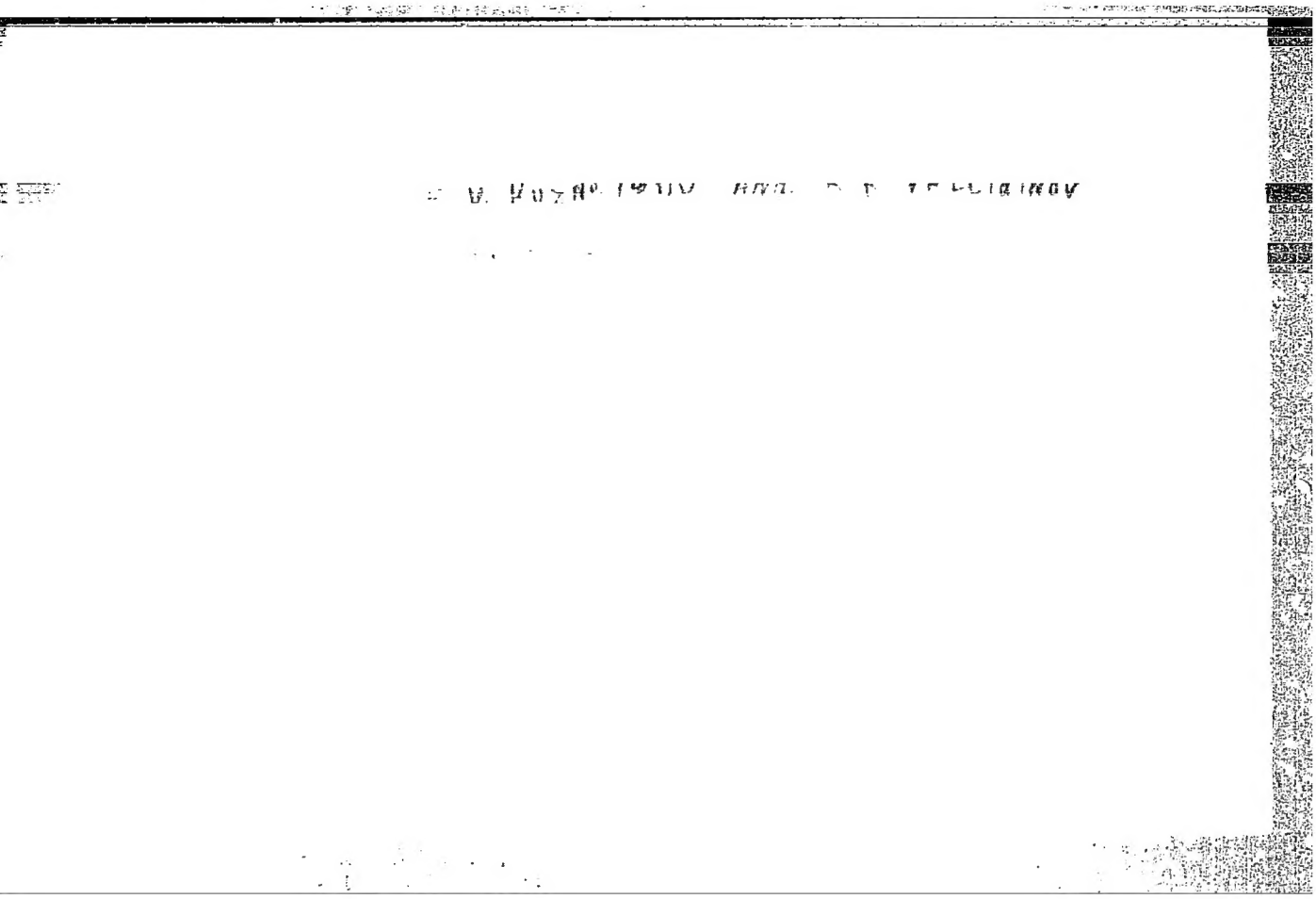

KUZNETSOV, Ye. V.

53-2-4/5

AUTHOR: Kuznetsov, Ye. V.

TITLE: Bubble Chambers (Puzyr'kovyye kamery)

PERIODICAL: Uspekhi Fizicheskikh Nauk, 1958, Vol. 64, Nr 2, pp. 361-309 (USSR)

ABSTRACT: The present survey is arranged in the following way: Introduction I. The physical foundations of the operation of bubble chambers (overheated liquids, the utilization of overheated liquids for the detection of ionizing particles.) II. The construction of bubble chambers (the chamber itself and the expansion mechanism. The thermostatic devices, the photographic camera and the illumination system, the elaboration of the photographs, the hydrogen chambers.) III. The operation liquids (organic liquids, anorganic liquids, supersaturated gas solutions, mixtures of liquids). IV. The operational properties of bubble chambers (The selection of temperature and pressure, the expansion coefficient, the sensitivity, the sensitivity period and the velocity of growth of the bubbles, the duration of the operational cycle and the efficiency, the interconnection of the operational parameters.)

Card 1/2

Bubble Chambers

53-2-4/5

V. The measurement of the velocity of the particles by means of a bubble chamber. There are 12 figures, 2 tables, and 49 references, 14 of which are Slavic.

AVAILABLE: Library of Congress

1. Ionizing particles-Detection 2. Organic liquids 3. Anorganic liquids 4. Gas solutions 5. Chambers-Applications

Card 2/2

SOV/120-59-4-6/50

AUTHORS: Kuznetsov, Ye. V., Timoshin, I. Ya.

TITLE: A Xenon Bubble Chamber

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 40-44 and 1 plate (USSR)

ABSTRACT: A description is given of a xenon bubble chamber with a working volume of 20 x 11 x 10 cm^3. The chamber is shown in Fig 1 and is made of a single piece of stainless steel. The chamber is cooled by 8 channels drilled through it. The channels are connected in series with the RKF-0.9 refrigerating machine which forms a part of the installation. Thermal insulation of the chamber is obtained by means of sheets of plastic foam. The viewing glasses are made of plexiglass 45 mm thick. The membranes M_1 and M_2 are made of soft rubber 4 mm thick and the packing between the glass and the body is made of hard rubber 2 mm thick. A safety valve (Fig 2) is attached to the upper wall of the chamber. The charged particles are let in through the cap 3 which is made of dural 8.5 mm thick and has a diameter of 80 mm. The particle tracks are photographed by a camera 8. Fig 5 shows a typical photograph obtained for 290 Mev π^+-mesons. A detailed description is given of the valve and the supply systems.

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SOV/120-59-4-6/50

A Xenon Bubble Chamber

A. G. Meshkovskiy, A. I. Alikhanov and Yu. V. Bardyukov are thanked for assistance and interest. There 4 figures and 4 references, of which 1 is Soviet and 3 are English.

SUBMITTED: July 11, 1958.

Card 2/2

KUZNETSOV, YE. V.

82597
S/056/60/039/01/05/029
B006/B070

24.6900

AUTHORS: Ivanovskaya, I. A., Kuznetsov, Ye. V., Mal'tsev, E. I. Prokesh, A., Stashkov, G. M., Chuvilo, I. V.

TITLE: A Possible Case of the Disintegration of a Neutral Cascade Meson

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 1 (7), pp. 44-46

TEXT: During the irradiation of a two liter Xenon bubble chamber with negative pions (momentum 3 Bev/c) in the ITEF AN SSSR (Institute of Theoretical and Experimental Physics of the AS USSR) 20000 photographs were taken. In their evaluation one was found, represented in Fig. 1, which is assumed to disintegrate according to the scheme $D^0 \rightarrow K^+ + \pi^-$. Fig. 2 shows the geometrical scheme of this decay event. The chamber worked without a magnetic field. Identification of the particles was made only according to ionization and multiple scattering. The results of measurement are compiled in a table. In the diagram the path ends are denoted by letters, so that the particles (i.e. the tracks) are described in each case by two letters. Point b lies in the primary pion beam. The

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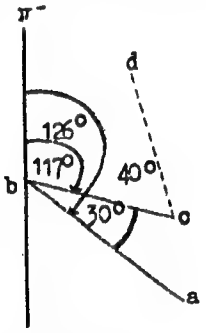
A Possible Case of the Disintegration of a Neutral Cascade Meson

S/056/60/039/01/05/029
B006/B070

directions of motion of the particles are denoted by arrows. The mass of particle "bc", which is stopped in the chamber volume, was determined to be (490±190) Mev, which agrees with the mass of the K meson within the statistical error limits. The momentum determination for the "cd" particles gave the value (180±54) Mev/c, which corresponds to a K_{π_2} or K_{μ_2} decay. Further considerations showed that the track sequence "bc" - "cd" represents a K^+ meson decay (and not $\pi-\mu-e$). The "ba" particle of momentum (113±22) Mev/c and mass (195±55) Mev corresponds to a pion or a muon. Since the track ends with a nuclear disintegration, "ba" is considered to be a pion. Some other possibilities of decay modes are discussed, as for example, $K^0+n \rightarrow n+K^++\pi^-$. But, on grounds explained here they have very small probabilities. The only probable interpretation of the observed decay remains the mode $D^0 \rightarrow K^++\pi^-+Q$ with $Q = 10 \div 50$ Mev. The mass of D^0 is taken to be (660±50) Mev and the mode of production is assumed to be $\pi^- + p \rightarrow n + D^0$.



Card 2/3

82597

A Possible Case of the Disintegration of a Neutral Cascade Meson

S/056/60/039/01/05/029
B006/B070

Since a D^+ meson is already known, it may be assumed that, D^+-, D^0-, and D^--mesons exist, which all decay according to the scheme $D \rightarrow K + \pi$. There are 2 figures, 1 table, and 7 references: 5 Soviet, 1 Chinese, and 1 Italian.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: February 15, 1960

Card 3/3

IVANOVSKAYA, I.A.; KUZNETSOV, Ye.V.; PROKESH, A.; CHUVILO, I.V.

Cross polarization of Λ-hyperons generated by π^--mesons with a pulse of 2,8 Bev/c on xenon nuclei. Zhur. eksp. i teor. fiz. 40 no.2:708-709 F '61. (MIRA 14:7)

1. Ob"yedinennyy institut yadernykh issledovaniy i Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR.
(Mesons)

KUZNETSOV, Ye. V., SHALAMOV, Ya. Ya., and GRASHIN, A. F., KUZNETSOV, E. P.

"Evidence for the Resonances in $K^{\circ}Y(\xi,1)$ Systems at 1650 and 1920 MeV."

Report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Institute of Theoretical and Experimental Physics, Moscow, USSR
(Kuznetsov, Shalamov, Grashin)

Lebedev Institute of Physics, Moscow, USSR (Kuznetsov, E.P.)

KUZNETSOV, YE. V.

BARMIN, V. V.; KRESTNIKOV, Yu. G.; KUZNETSOV, Ye. V.; LOSHKOVSKY, A. G.; NIKITIN, Yu. P.; SHEBANOV, V. A.

(1)

"π^0-Production in the Coulimb Field of Nucleus"

report presented at the 11th Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Institute of Theoretical and Experimental Physics, Moscow, USSR

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928210018-0"

KUZNETSOV, Ye. V.

BAYUKIN, V.V., KRESTNIKOV, Yu. S., KUZNETSOV, Ye. V., MESHKOVSKIY, A. G., and SHEBANOV, V. A.

"Search for Resonances in the Reaction of $K\tilde{K}$ Pair Production"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Inst. of Theoretical and Experimental Physics, Moscow, USSR

KUZNETSOV, Ye.V.; KUZNETSOV, Yo.P.; CHALAMOV, Ya. Ya.; GRASHIN, A. F.

Experimental data indicating the existence of resonance in a $K^0\Lambda^0$-system at an energy of 1650 Mev. Zhur. eksp. i teor. fiz. 42 no.6:1675-1677 Je '62. (MIRA 15:9)

1. Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR. 2. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.
(Nuclear reactions)

S/056/62/043/003/005/063
B125/B102

AUTHORS: Ivanovskaya, I. A., Kuznetsov, Ye. V., Prokesh, A., Chuvilo, I. V.

TITLE: Angular distribution of decay products from Λ-hyperons produced by 2.8 BeV/c π^--mesons acting on xenon nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3 (9), 1962, 765-774

TEXT: The asymmetry coefficients for the angular distribution of the decay products of $\bar{\Lambda}$ hyperons were determined from 360 reliably identified Λ-particles and from 70 cases (Λ or K^0) imperfectly determined. These particles were produced by negative 2.8 BeV/c pions on xenon nuclei according to $\pi^- + p \rightarrow K^0 + \Lambda$. The relation $\alpha P_1 = 0.27 \pm 0.12$ holds for the up - down asymmetry with respect to the plane of production of the Λ-particles at momenta from 400 to 900 Mev/c in the coordinate system of Fig. 2. α characterizes the degree of parity non-conservation in the Λ-particle decay. With

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S/056/62/043/003/005/063
B125/B102

Angular distribution of decay ...

$\alpha = -0.75^{+0.15}_{-0.50}$ the value $\bar{P} = 0.36^{+0.18}_{-0.22}$ is deduced for the polarization $\bar{P}$ averaged over the production angle. The transverse polarization depends on the momentum of the Λ-hyperon in the laboratory system and perhaps changes its sign at the momenta >900 Mev/c. Owing to this low polarizability, heavy nuclei cannot be used as targets for the production of polarized particles. Systematic errors, difficult to control (being perhaps of the same order as the effect itself), make it more difficult to draw exact conclusions as to the amount of $\alpha\bar{P}_2$. This amount characterizes the forward-backward asymmetry. For all Λ-particles produced according to $\pi^- + Xe \rightarrow \Lambda + K + Xe' + n\pi$, perhaps $\alpha\bar{P}_3 = 0$. The quantity $\alpha\bar{P}_3$ characterizes the right - left asymmetry. Xe' denotes the secondary nucleus and $n\pi$ are the accompanying pions. With $\varphi_\Lambda < 26^\circ$ the asymmetry $\alpha\bar{P}_3$ is non-zero for all Λ with any momentum. There are 3 figures and 1 table.

Card 2/4 3

S/056/62/043/003/005/063
Angular distribution of decay ... B125/B102

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR). Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: March 27, 1962

Table: dependence of the asymmetry coefficients on momentum (in Mev/c) and the emission angle of the Λ-particle in the laboratory system.

Card 3/6 3

S/056/62/043/004/016/061
B102/B180

AUTHORS: Barmin, V. V., Krestnikov, Yu. S., Kuznetsov, Ye. V., Meshkovskiy, A. G., Nikitin, Yu. P., Shebanov, V. A.

TITLE: π^0 meson production in the nuclear Coulomb field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1223 - 1230 .

TEXT: To study the mechanism of coherent interaction, in which momentum transfer is very low and nuclear excitation absent, $\pi^- + N^A_Z \to \pi^- + \pi^0 + N^A_Z$ reactions were examined. They can only occur via interaction with the nuclear Coulomb field, diffractive pion "dissociations" being strongly forbidden. Only one pion dissociation experiment is hitherto known (Baldassarre et al. Nuovo Cim. 21, 459, 1961). Using a 2-liter xenon bubble chamber and 2.8 Bev/c π^- mesons from the proton-synchrotron of the OIYaI about 10,000 stereophotographs were obtained, and a similar number with a freon chamber. 48 and 31 events of π^- scattering through 3-30° accompanied by two electron-positron pairs were found respectively. After kinematic ana-

Card 1/2

lysis, there remained 25 and 13 events which could be attributed to the $\pi^- + Xe \to \mu^- + \pi^0 + Xe$ reaction. This is $(3.7\pm1.3)\cdot10^{-3}$ of the total number of inelastic interactions, the cross section of which was 1200 mb, from which the pion dissociation cross section was found to be $\sigma_c = 4.4\pm1.6$ mb. Recording efficiency was taken into account. There was a sharp peak at $\theta < 10^0$ in the angular distribution of this reaction. For σ_{ph} the mean cross section of the photoprocess $\gamma + \pi^- \to \pi^- + \pi^0$, 0.6 ± 0.2 mb was obtained using the relation $\sigma_c = 7.5\,\bar{\sigma}_{ph}$. It holds for the energy range $4m^2 \leqslant w^2 \leqslant 21m^2$, where m is the pion mass and w the center-of-mass total energy of the pions produced in the photoprocess. There are 3 figures and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR)

SUBMITTED: May 17, 1962

Card 2/2

S/056/62/043/004/061/061
B104/B186

AUTHORS: Barmin, V. V., Krestnikov, Yu. S., Kuznetsov, Ye. V., Meshkovskiy, A. G., Shebanov, V. A.

TITLE: Search for resonances of K^oK^o pair production reactions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1564-1565

TEXT: K^oK^o pair production processes with 2.8 Bev/c π^--mesons in Freon and xenon bubble chambers had been studied by Ye. V. Kuznetsov and I. Ye. Timoshin (PTE, 4, 40, 1959) and G. A. Blinov et al. (PTE, 1, 35, 1958). In these studies 38 and 13 events respectively of K^oK^o pair production were observed. To find possible resonances in the K^oK^o system the distribution of the pairs detected over their effective masses was now constructed (Fig. a). The error in the masses is approximately ±25 Mev. The broken lines indicate the boundary values of the $m(K^oK^o)$. The distribution has a peak at $m(K^oK^o) = 1275$ Mev but the statistical reliability of this is very low. It was shown that the hypothesis of the decay of a σ_o-meson according to the scheme $\sigma_o \rightarrow K^o + K^o + \pi^o$ could be completely

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S/056/62/043/004/061/061
B104/B186

Search for resonances of ...

refuted. A total of nine events was detected in which two K^o-mesons departed without any charged particle or quantum. These events can be interpreted according to the reaction $\pi^- + p \rightarrow K^o + \bar{K}^o + n$. In this case the effective mass of $\bar{K}^o + n$ can be determined from the momentum and angle of departure of the K^o-meson (Fig. b). The peak at 1715 Mev has little statistical reliability so the resonances can only be supposed. There is 1 figure.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute of Theoretical and Experimental Physics)

SUBMITTED: July 17, 1962

Card 2/2

S/056/62/043/005/055/058
B125/B104

AUTHORS: Kuznetsov, Ye. V., Shalamov, Ya. Ya.

TITLE: The resonance types in a baryon system having the strangeness |S| = 1

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 5(11), 1962, 1979 - 1980

TEXT: Xenon and Freon bubble chambers were used to investigate the spectrum of mass defects determined from the K_1^0-meson in the reaction $\pi^- + N \to K^0(\bar{K}^0) + Y(K,N) + m\pi$ (m = 0,1,...). In examining the pictures only such stars were selected as were accompanied by V^0 events (that are correlated with the point of interaction). The momentum of the incident negative pions is 2.8 Bev/c. In this reaction the energy, momentum and effective mass m of the system $Y(K,N)+m\pi$ can be determined from the momenta of the K^0-meson and of the incident negative pion. The latter is assumed to collide with the bound quasi-free nucleon. The spectrum of the effective masses obtained from ~700 events of K_1-meson decays is shown in the Figure. The masses of the hyperons, and the resonances known at

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S/056/62/043/005/055/058
B125/B104

The resonance types in a... present, are marked by arrows. The statistical guarantee for the newly observed maxima 1680, 1720, 1900 and 1960 Mev is small. According to the experimental data the K^0-mesons of the reaction $Z^0 \rightarrow K^0 + \Lambda + Q$ yield effective masses varying between 1.6 and 1.97 Bev, which values approach closely the maximum value $m^* = 1.97$ Bev. There is 1 figure.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute of Theoretical and Experimental Physics)

SUBMITTED: August 20, 1962

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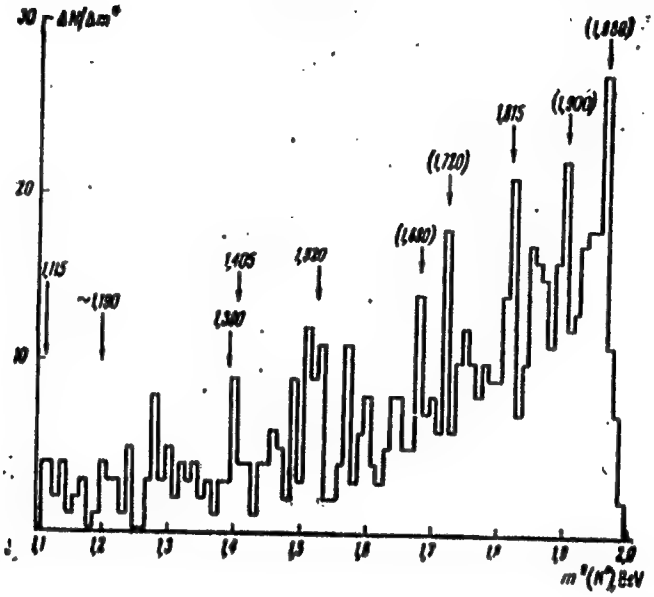
The resonance types in a...

S/056/62/043/005/055/058
B125/B104

Figure. Distribution of the number of events with respect to the effective mass of the particle system Y(K,N)+mπ (m = 0,1,2)



Card 3/3

S/056/63/044/002/052/065
B184/B102

AUTHORS: Barmin, V. V., Krestnikov, Yu. S., Kuznetsov, Yu. V., Meshkovskiy, A. G., Nikitin, Yu. P., Shebanov, V. A.

TITLE: New data on π^0 meson production in the nuclear Coulomb field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 748 - 749

TEXT: The present article is a continuation of experimental studies (ZhETF, 43, 1223, 1962) on the reaction $\pi^- + Xe \longrightarrow \pi^- + \pi^0 + Xe$, observed in a xenon bubble chamber bombarded by pions of 2.8 Bev/c. 25 events had been found on scanning about 10,000 stereophotographs. Now another 15,000 stereophotographs were scanned four times and 53 π^0 production events were found. Since $d\sigma/d\Omega = f(\theta)$ tends to zero with $\theta \longrightarrow 30^\circ$, the reaction cross-section was determined from the values obtained for $3^\circ \leqslant \theta \leqslant 30^\circ$, and $\sigma_c = 2.65 \pm 0.90$ mb was obtained; θ is the angle of π^- omission. The inelastic scattering cross-section was taken as 1200 mb. From this result also the cross-section $\overline{\sigma}_p$ of the reaction $\gamma + \pi^- \longrightarrow \pi^- + \pi^0$ was estimated; assuming $\sigma_c/\overline{\sigma}_p = 7.5$, a value of 0.35 ± 0.12 mb was obtained for $\overline{\sigma}_p$. There are

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S/056/63/044/002/052/065
B184/B102

New data on π^0 meson production...

1 figure and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR)

SUBMITTED: November 2, 1962

Card 2/2

L 10286-63 EPF(c)/EWP(q)/EWT(m)/BDS--AFFTC/ASD--Pr-4--JD

ACCESSION NR: AP3000034 S/0056/63/044/005/1456/1462 63

AUTHOR: Ivanovskaya, Z. A.; Kuznetsov, Ye. Ya.; Prokesh, A.; Chuvilo, I. V. 61

TITLE: Production of strange particles by 2.8 BeV/c negative pions on xenon nuclei 19 27

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1456-1462

TOPIC TAGS: Strange particles, production cross sections, negative pions, LAMBDA hyperons, neutral Kaons, xenon and freon

ABSTRACT: The relative and absolute cross sections were measured for the different channels of production of strange particles, mainly LAMBDA hyperons and neutral Kaons, by 2.8-BeV negative pions in a xenon bubble chamber. THe angular and momentum distributions of these particles are also presented. Both direct particle production and production via short-lived intermediate particles are included. The experiment was described in detail in a separate article by the authors (Zhurnal eksperimental'noy i teoreticheskoy fiziki, vol. 43, 765, 1962). The cross section measurement results are tabulated (Enclosure 1). It

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L 10286-63
ACCESSION NR: AP3000034 2

is concluded that reactions differing only with regard to the charge of strange particles occur with identical intensity. The experimental cross section ratios are in good agreement with Fermi-model calculations for some cases, and 1.5 times smaller in others. The bulk of the LAMBDA hyperons are emitted backward within a 154-180° cone in the pion-nucleon center of mass system. The angular distributions depend only slightly on the strange-particle charge. About 30% of the LAMBDA hyperons are scattered in the parent nucleus. Comparison of the data on the neutral Kaon-Antikaon pairs produced in freon and xenon indicates that the neutral Kaons are scattered considerably less frequently in the nucleus. There are 3 figures, 5 formulas, and one table.

ASSOCIATION: Institute of theoretical and experimental physics (Institut teoreticheskoy i eksperimental'noy fiziki); Joint Institute of Nuclear Research (Ob"yedenennyy institut yadernykh issledovaniy).

SUBMITTED: 17Nov62 DATE ACQ: 12Jun63 ENCL: 01

SUB CODE: PH NR REF SOV: 007 OTHER: 007

Card 2/2

VESELOVSKIY, G.S.; GRASHIN, A.F.; DEMIDOV, V.S.; KUZNETSOV, Ye.V. [deceased]; KUZNETSOV, Ye.P.; PONOSOV, A.K.; PROTASOV, V.P.; SERGEYEV, F.M.; SHALAMOV, Ya.Ya.

Production of slow π^--mesons on light nuclei, and $\pi\pi$-interaction. IAd. fiz. 2 no.3:496-500 S '65. (MIRA 18:9)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

L 7018-66 EWT(m)/EPF(c)/EWP(j)/EWA(c) RPL WW/RM

ACC NR: AP5026780 SOURCE CODE: UR/0286/65/000/017/0067/0067

AUTHOR: Kuznetsov, Ye. V.; Arkhireyev, V. P.; Batalina, M. V.

TITLE: A method for producing polyisocyanates which contain phosphorus. Class 39, No. 174356 [announced by Kazan Chemical Engineering Institute im. S. M. Kirov (Kazanskiy khimiko-tekhnologicheskiy institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 67

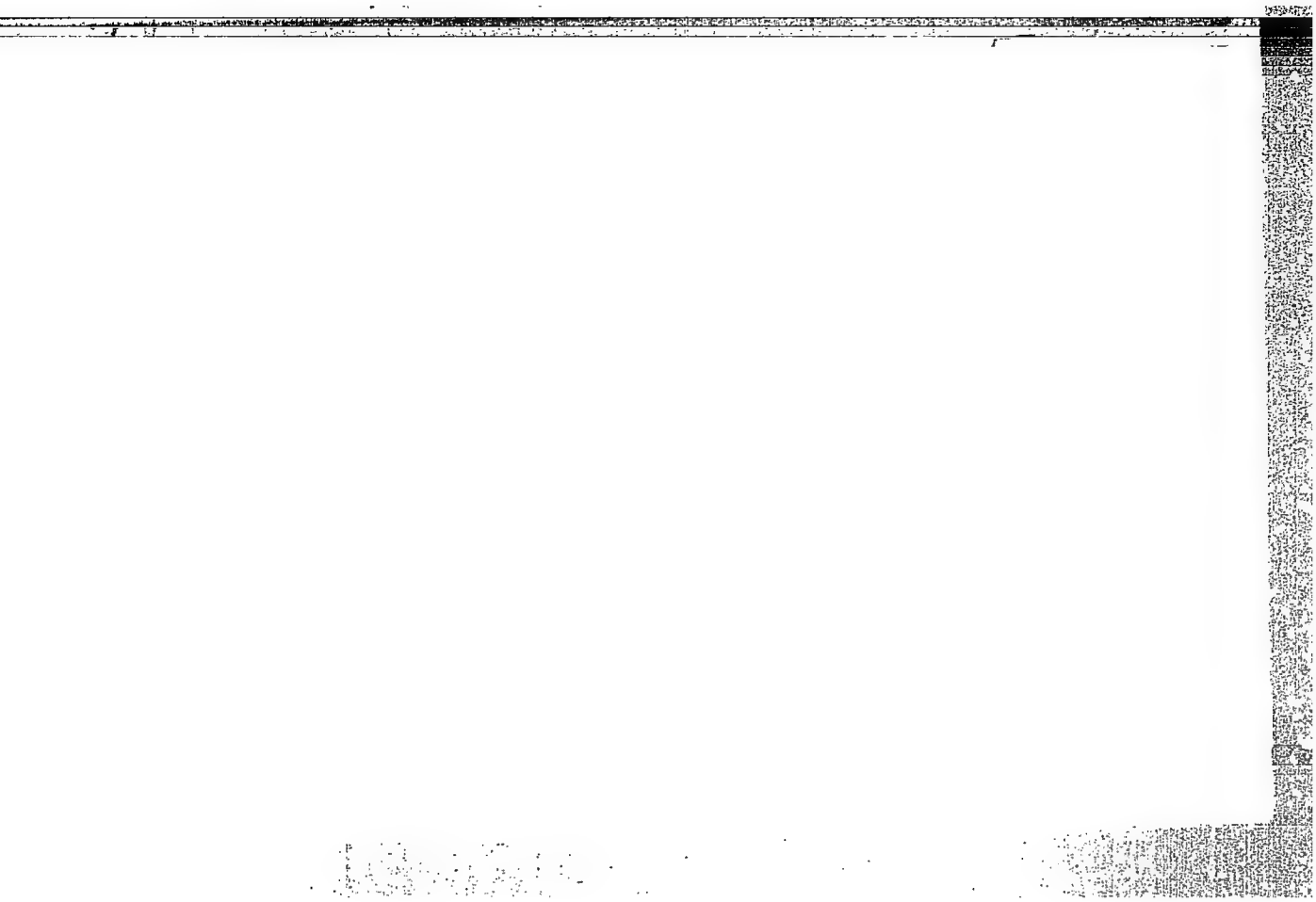
TOPIC TAGS: polymer, phosphorus, isocyanate resin, aromatic hydrocarbon

ABSTRACT: This Author's Certificate introduces a method for producing polyisocyanates which contain phosphorus by interacting aromatic diisocyanates with trialkyl phosphites. A wider selection of phosphorus-containing polyisocyanates is produced by using 2,4-toluylene diisocyanate and conducting the reaction at 70-120°C.

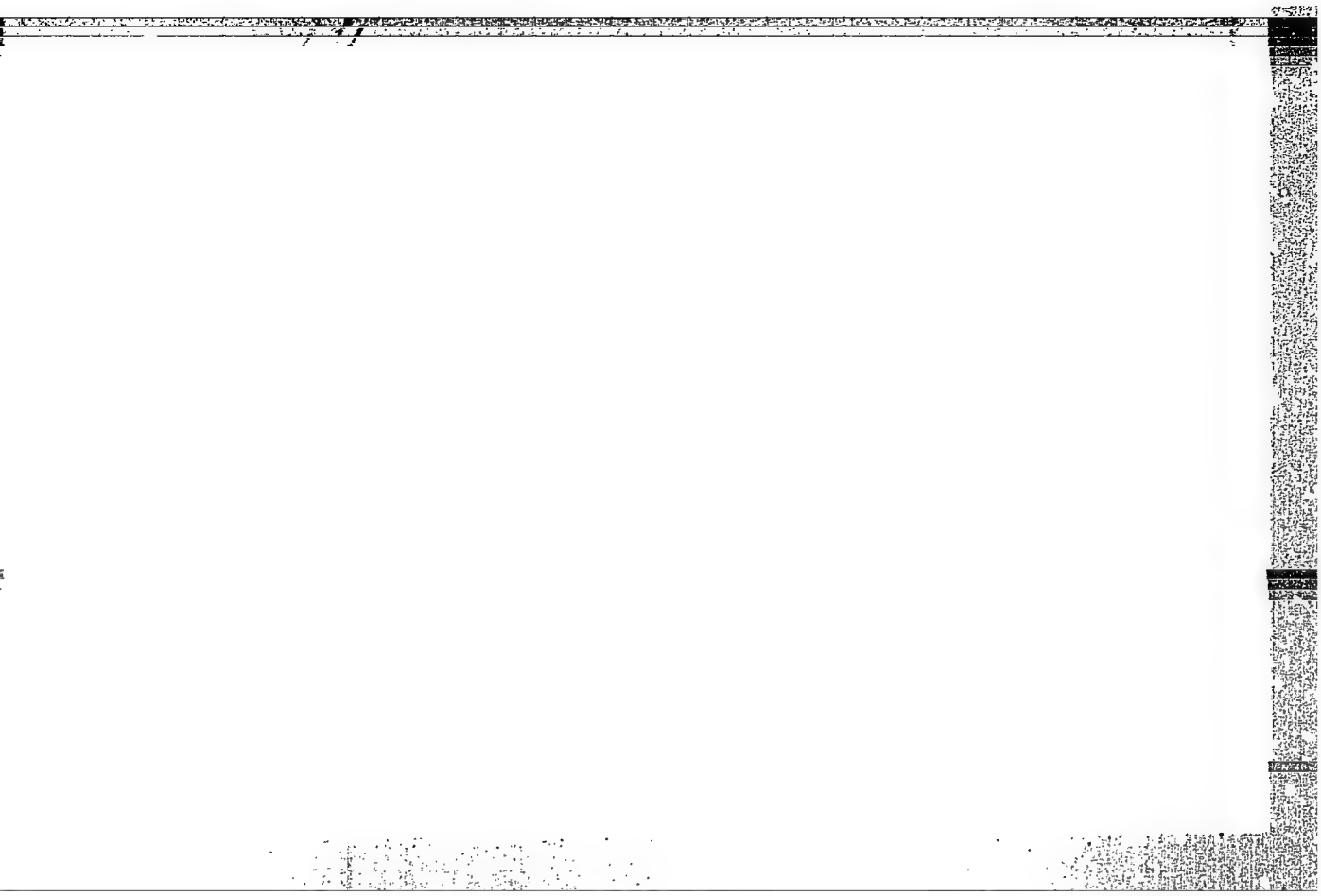
UDC: 678.66.002.2

SUB CODE: GC,MT/ SUBM DATE: 27Jun64/ ORIG REF: 000/ OTH REF: 000

Card 1/1



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928210018-0"



KUZNETSOV, Ye.V.; FAYZULLINA, D.A.; TYURIKOVA, R.P.

Reaction of aromatic disulfochlorides with trimethylol- and tetramethylol-containing organophosphorus compounds. Vysokom. soed. 7 no.5:761-764 My '65. (MIRA 18:9)

1. Kazanskiy khimiko-tekhnologicheskiy institut imeni S.M.Kirova.

L 8507-66 EWT(m)/EWP(j) RM

ACC NR: AP5028489 SOURCE CODE: UR/0286/65/000/020/0066/0066

AUTHORS: Kuznetsov, Ye. V.; Shermergorn, I. M.; Vagapova, A. K.

ORG: none

TITLE: A method for obtaining polyphosphites. Class 39, No. 175655

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 66

TOPIC TAGS: phosphorus compound, alkyl, aryl, phenol, xylene, nitrogen

ABSTRACT: This Author Certificate presents a method for obtaining polyphosphites by polycondensation of alkyl(aryl)dichlorophosphites and diphenols. To simplify the technique of obtaining the above compounds, polycondensation is conducted in a xylene solution. Nitrogen is constantly blown through the reacting mass during its polycondensation.

SUB CODE: 07/ SUBM DATE: 07Jun63

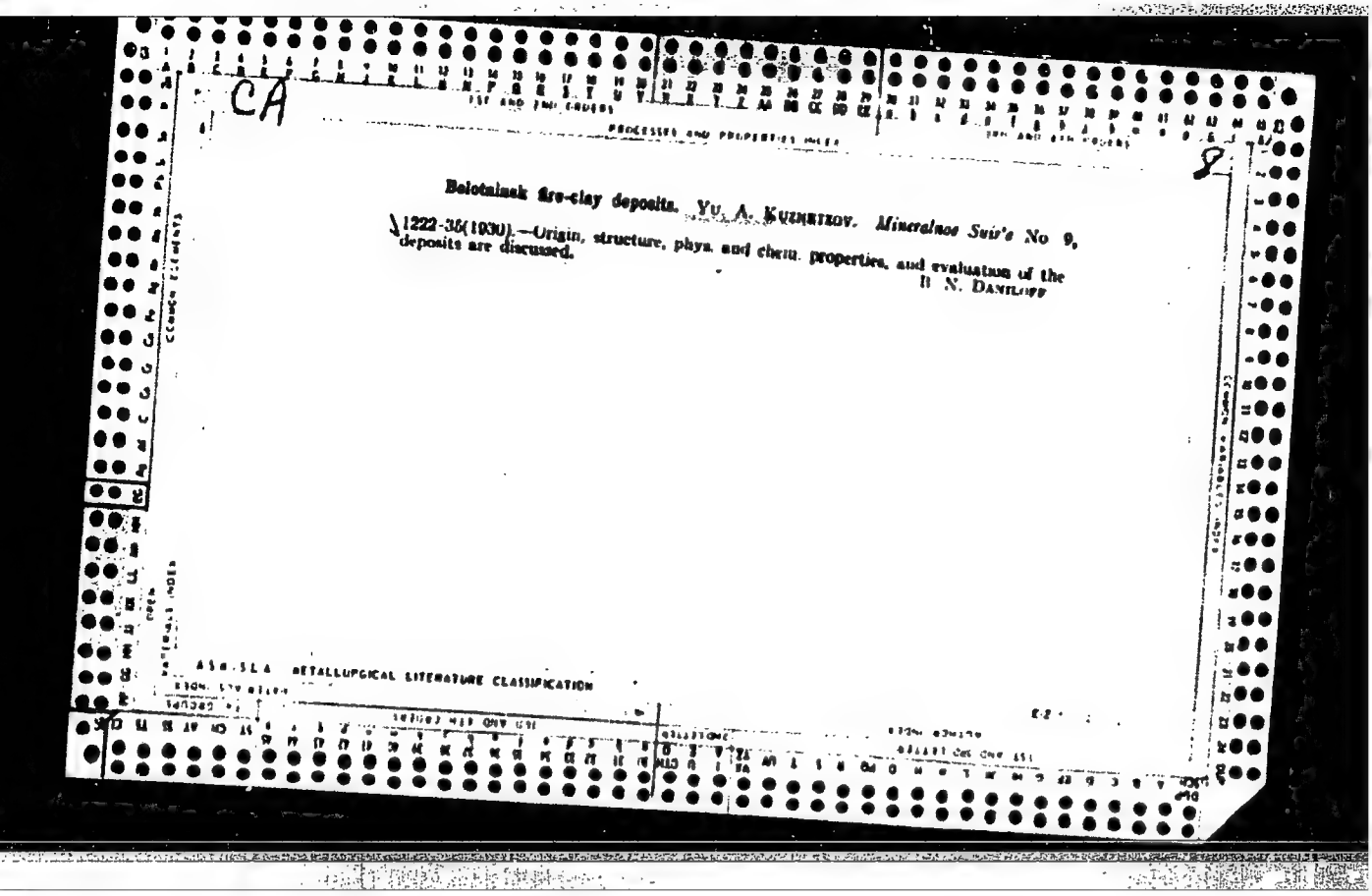
BVK

Card 1/1 UDC: 678.673:678.85

KUZNETSOV, Yu. (Leningrad)

Earth under the beam of the "IUpiter" instrument. Tekh.mol. 31 no.4:9 '63. (MIRA 16:6)

(Earth—Rotation)



CA

Belotsinsk fire-clay deposits. Yu. A. Kuznetsov. *Mineralnoe Syir'e* No 9, 1222-36(1930).—Origin, structure, phys. and chem. properties, and evaluation of the deposits are discussed.
B. N. Danilov

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZNETSOV, Yu. A.

USSR/Geology - Porphyry Mar/Apr 51

"Intruded Porphyry of Northwest Altay and Its Phase," Yu. A. Kuznetsov

"Iz Ak Nauk, Ser Geol" No 2, pp 45-54

Expresses opinion that essential differences in intruded porphyry of lower Silurian and Devonian formations are due to different depth of formation. Suggests classifying magmatic rocks into "sub-extrusive" and "proper hypabyssal" phases.

LC 18Or55

KUZNETSOV, Yu. A.

USSR/Minerals - Magma Nov/Dec 51

"Origin, Terminology and Classification of Magmatic Rocks," Yu. A. Kuznetsov

"Iz Ak Nauk SSSR, Ser Geol" No 6, pp 103-109

Kuznetsov points out the disparity between modern conceptions of origin of "magmatic" rocks and their terminology and classification and also the necessity of prepg a rational terminology and natural classification of rocks of this type.

205T87

KUZNETSOV, Yu.A.

Yenisey Ridge. Trudy Lab.geol.dokem. no.1:84-106 '52. (MLRA 7:2)
(Yenisey Ridge--Geology) (Geology--Yenisey Ridge)

KUZNETSOV, YU. A.

PA 245T48

USSR/Geophysics - Magmatic Rocks Jan/Feb 53

"Problem of the Origin of Magmatic Rocks," Yu. A. Kuznetsov

"Iz Ak Nauk, Ser Geolog" No 1, pp 81-97

Demonstrates heterogenicity of rocks of magmatic appearance. Divides into three basic genetic complexes: granitic, basaltic, and hyperbasaltic. Also analyzes the conditions and history of the rock formation.

245T48

KUZNETSOV, Yu. A.

Origin of Magmatic Rocks Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 13-46

The author connects the formation of magma of hyperbasite complex with the selective melting of peridotite simatic shell. He asserts that magmatic rocks according to appearance can be derived granitic, basaltic and hyperbasitic magmata, and also products of granitization and basification. (RZhGeol, No 1, 1954)

SO: W-31128, 11 Jan 55

USSR/ Minerals - Ore deposits

Card 1/1 Pub. 46 - 3/21

Authors : Kuznetsov, Yu. A.

Title : Iron mineralization and genetic types of intrusions

Periodical : Izv. AN SSSR. Ser. geol. 20/2, 35 - 43, Mar-Apr 1955

Abstract : An analysis of the genetic ties of contact iron-ore deposits with intrusions and the determination of the genetic types of the latter, show the presence of metallogenic specialization of magma, which in the case of iron is shown by the fact that most endogenic iron-ore deposits prove to be genetically connected with different derivatives of basic basalt magma, while contact iron-ore deposits come into existence mainly in connection with basalt magma, differentiated in the direction of trachyte. Large contact iron-ore deposits, genetically connected with granite intrusions, rarely arise, and then only with a massive assimilation with the granite magma of basic rocks. Fifteen Soviet references (1936-1953). Table; graph.

Institution : .....

Submitted : May 13, 1954

KUZNETSOV, Yu.A.

Subject and tasks of petrology and its place in the series of other geological sciences. Zap.Vses.min.ob-va 84 no.3:267-275 '55.
(Petrology) (MLRA 8:11)

KUZNETSOV, YU. A.

AUTHOR: Kuznetsov, Yu.A. 11-7-21/23

TITLE: "'Critical Notes' by V.G. Korel'" (Po povodu "kriticheskikh zamechaniy" V.G. Korelya)

PERIODICAL: "Izvestiya Akademii Nauk SSSR", Seriya Geologicheskaya, 1957, No. 7, pp. 119-122, (USSR)

ABSTRACT: V.G. Korel' criticized the author's article: Origination of Iron Ore", published in "Izvestiya Akademii Nauk", No 8, 1956. In his article, the author endeavored to give a comparative characterization of syenites (beta syenites), with respect to genetics and spacing tied up with volcanic complexes and ultimately with effusive magma, as well as syenites connected with granitoid intrusions (gamma syenites). The author made reference to the FeO:MgO relation, which varied between 2.5 for beta syenites, and 1.2 for gamma syenites. V.G. Korel, supporting in general the views of the author, disagreed in 2 points, namely: 1) he questioned the possibility to utilize the FeO:MgO relation for establishing the genetic type of syenites, and 2) he disagreed with the author's evaluation of the role of intrusion of the basaltoid and granitoid origin of endogenous iron ore. In reply to oritic-

Card 1/2 ism, the author pointed out that his calculations of the

"'Critical Notes' by V.G. Korel'"

11-7-21/23

FeO:MgO relation were based on molecular quantities, and not, as assumed by Korel, on percentages of weight. Summarizing the author claimed that the critical remarks of Korel lack the most elementary presuppositions which could render them valuable in any respect.
The article contains 6 references, all of which are Slavic (Russian)

SUBMITTED: December 18, 1956

AVAILABLE: Library of Congress

Card 2/2

KUZNETSOV, Yu.A.

3(5) p.3 PHASE I BOOK EXPLOITATION SOV/1923

Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh nauk. Komissiya po probleme "Zakonomernosti razmeshcheniya poleznykh iskopayemykh."

Zakonomernosti razmeshcheniya poleznykh iskopayemykh (Regularities in the Distribution of Mineral Deposits Vol 1. Moscow, Izd-vo AN SSSR, 1958. 532 p. Errata slip inserted. 2,500 copies printed.

Resp. Ed.: N.S. Shatskiy, Academician; Editorial Board: N.S. Shatskiy, Academician, D.I. Shcherbakov, Academician, N.A. Belyayevskiy, N.N. Dolgopolov, O.D. Levitskiy, Yu.M. Pushcharovskiy, G.A. Sokolov; Ed. of Publishing House: G.I. Nosov; Tech. Ed.: I.N. Guseva

PURPOSE: This book is intended for geologists and petrographers, particularly those interested in the worldwide distribution of minerals and the reasons underlying their occurrence.

Card 1/6

Mineral Deposits (Cont.) SOV/1923

COVERAGE: On the basis of particular regional studies this book attempts to establish the rules governing the distribution of metallic and non-metallic ore deposits. The work includes articles on the metallogeny of individual minerals, on broad methodological problems, and on the possibility of predicting the occurrence of a mineral in the USSR on the basis of its occurrence throughout the world. Six maps depicting the distribution of a particular mineral throughout the world are included with the work. References accompany each article.

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AVAILABLE: Library of Congress

Card 6/6 MM/lab 6/30/59

KUZNETSOV, Yu.A.

Magmatic formations. Zakonom. rasm. polezn. iskop. 1:142-159 '58. (MIRA 12:3)

1.Tomskiy politekhnicheskiy institut.
(Rocks, Igneous)

KUZNETSOV, Yu-A

AUTHOR: Khitarov, N. I. SOV/7-58-5-14/15

TITLE: Transactions of the Second All-Union Conference on Petrography (Vtoroye Vsesoyuznoye petrograficheskoye soveshchaniye)

PERIODICAL: Geokhimiya, 1958, Nr 5, pp. 507 - 508 (USSR)

ABSTRACT: The second All-Union Conference on Petrography took place at Tashkent from May 19 to 23, 1958. It was attended by about 600 scientists from home and abroad. About 20 scientific lectures were held at the plenary meetings. The Minister of Geology and the Protection of Mineral Deposits of the USSR P.Ya.Antropov spoke twice. He dealt with the state of geology in the Soviet Union and with the tasks of the geologists in science and practical work. The lecture delivered by V.A.Nikolayev dealt with the investigation of a system with unequal pressure exerted on the phases, and the application of the processes of endogenic mineral formation. D.S.Korzhinskiy spoke about "Acidity - Basicity, the Most Important Factor of Magmatic and Post-Magmatic Processes". Yu.A.Kuznetsov suggested a classification of the magmatic formations which is based on the most important tectonic structural types and the

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magmatism connected with them. N.P Semenenko lectured on "The genetic classification of metamorphous rocks and processes." V.P.Petrov pointed to "The necessity of introducing new research methods into practical petrographic work." N.I.Khitarov spoke about "the water content of basalt magma." V.S.Koptev -Dvornikov et al., in their lecture presented the results obtained by the collaborators of the IGEM, GEOKhI, AS USSR, and MGU in the investigation of the granitoids from various areas of the Union. The lecture delivered by Yu.I.Polovinkina dealt with "Geological rules governing the development of the magmatism in the area of the USSR." G.S.Dzotsenidze reported on "the role played by the effusive volcanism in the formation of useful deposits." Sh.A.Azizbekov and collaborators dealt with "the magmatism and the metallogenesis in Azerbaydzhan." I.G.Magak'yan and S.S.Mkrtchyan reported on "the genetic relation between mineralization and magmatism as shown by the example of the Malyy Kavkaz." Kh.M.Abdullayev spoke about "the magmatism and the metallogenetic processes in Central Asia connected with it (Srednyaya Aziya)." Ye.D.Karpova delivered a lecture on the "Intrusive and Ore Complexes in the Tectonic Zones of the

Card 2/4

Southern Tien Shan". . Then D.N.Yelyutin and collaborators spoke about "the formation of the intrusive complexes in the Northern zone of the Tien Shan". R.B.Baratov reported on "peculiarities of the magmatism and the metallogenesis in Tadzhikistan." At the final session A.A.Polkanov and E.K. Gerling spoke about "the potassium-argon method for the determination of the absolute age of rocks" and G.D.Afanas'yev on "The determination of the absolute age of rocks and their geological importance". Furthermore the following lectures were held: S.Dimitrov (Bulgaria) "On the Magmatism and the Ore Deposits in Bulgaria". Koutch (German Democratic Republic) "On the Genetic Peculiarities of the Mansfeld Slates". M.Savula (Roumania) "On the Application of the Method of Investigating Liquid Inclusions to Petrographic Problems". K.Smulikovskiy (Poland) "On the Genetic Classification of Granitoids". More than 70 lectures were held in 4 departments. Details of the transactions are to be presented in a special publication: Transactions of the Second All-Union Conference on Petrography (Materialy ko vtoromu Vsesoyuznomu petrograficheskomu soveshcha-

niyu). After the Conference two excursions were organized. The Third Petrographic Conference is to take place at Novosibirsk.

KUZNETSOV, Yu. A.

AUTHOR: Korel', V.G. 11-58-6-12/13

TITLE: Letter to the Editors (Pis'mo v redaktsiyu)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, Nr 6, pp 108-109 (USSR)

ABSTRACT: This is a rectification of a statement by Yu.A. Kuznetsov, author of the article "On Iron Mineralization and Genetic Types of Intrusions" published in Nr 2 of 1955 and Nr 7, 1957 of this periodical.

AVAILABLE: Library of Congress

Card 1/1 1. Geology-Errors

SATPAYEV, K.I., akademik, glavnyy red.; KUZNETSOV, Yu.A., zam.glavnogo red.; MONICH, V.K., prof., doktor, otv.red.; SUVOROVA, R.I., red.; GLAZYRINA, D.M., red.; RZHONDKOVSKAYA, L.S., red.; BRAILOVSKAYA, M.Ya., red.; ALFEROVA, P.F., tekhn.red.

[M.A.Usov's basic ideas on geology; papers in memory of Academician Mikhail Antonovich Usov] Osnovnye idei M.A.Usova v geologii; sbornik posviashchen svetloi pamiati akademika Mikhaila Antonovicha Usova. Alma-Ata, 1960. 540 p. (MIRA 13:12)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut geologicheskikh nauk. 2. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Geology)

ABDULLAYEV, Kh.M., glavnyy red.; ANTROPOV, P.Ya., red.; AZIZBEKOV, Sh.A., akademik, red.; AFANAS'YEV, G.D., red.; BATALOV, A.B., doktor geol.-mineral.nauk, red.; BELYAYEVSKIY, N.A., doktor geol.-mineral. nauk, red.; KOPTEV-DVORNIKOV, V.S., doktor geol.-mineral.nauk; red.; KUZNETSOV, Yu.A., red.; MARFUNIN, A.S., kand.geol.-mineral.nauk, red.; NIKOLAYEV, V.A., red.; POLOVINKINA, Yu.I., doktor geol.-mineral. nauk, red.; RUB, M.G., doktor geol.-mineral.nauk, red.; SATPAYEV, K.I., akademik, red.; SEMENENKO, N.P., akademik, red.; KHAMRABAYEV, I.Kh., doktor geol.-mineral.nauk, red.; PANOVA, A.I., red.izd-va; KITAYENKO, L.G., red.izd-va; KALOSHINA, T.V., red.izd-va; IVANOVA, A.G., tekhn.red.

[Magmatic activity and its role in the formation of minerals] Magmatizm i sviaz' s nim poleznykh iskopaemykh; trudy. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1960. 782 p.

(Continued on next card) (MIRA 13:11)

ABDULLAYEV, Kh.M.--- (continued) Card 2.

1. Vsesoyuznoye petrograficheskoye soveshchaniye. 2d, Tashkent. 2. President Akademii nauk Uzbekskoy SSR (for Abdullayev). 3. Chleny-korrespondenty AN SSSR (for Abdullayev, Afanas'yev, Kuznetsov, Nikolayev). 4. AN Azerbaydzhanskoy SSR (for Azizbekov). 5. AN SSSR (for Satpayev). 6. AN Ukrainskoy SSR (for Semenenko). 7. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR (for Afanas'yev, Marfunin, Rub). 8. Inst.geologii Akademii nauk Uzbekskoy SSR (for Batalov). 9. Laboratoriya geologii dokembriya Akademii nauk SSSR (for Nikolayev). 10. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Polovinkina). 11. Institut geologii Akademii nauk Ukrainskoy SSR (for Semenenko).
(Mineralogy)

KUZNETSOV, Yu.A.

Special role of granitoid intrusions in the history of magmatism of the Altai-Sayan fold area. Geol. i geofiz. no.1:23-37 '60. (MIRA 13:9)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
(Altai Mountains--Magma) (Sayan Mountains--Magma)

GODOVIKOV, A.A.; DISTANOV, E.G.; KOSYGIN, Yu.A.; KUZNETSOV, V.A.; KUZNETSOV, Yu.A.; SAKS, V.N.; SOBOLEV, V.S.; SOKOLOV, B.S.; TROFIMUK, A.A.; SHAKHOV, F.N.

In memory of Oleg Dmitrievich Levitskii. Geol. i geofiz. no.3:116-117 '61. (MIRA 14:5)
(Levitskii, Oleg Dmitrievich, 1909-1961)

KUZNETSOV, Yu.A.

Heterogeneity of igneous rocks as exemplified by granites.
Geol.i geofiz. no.10:50-59 '61. (MIRA 14:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Rocks, Igneous)

BGATOV, V.I.; BOGOLEPOV, K.V.; KAZARINOV, V.P.; KALUGIN, A.S.; KOSOLOBOV, N.I.; KOSYGIN, Yu.A.; KRASIL'NIKOV, B.N.; KRASNOV, V.I.; KUZNETSOV, Yu.A.; KUZNETSOV, V.A.; LIZALEK, N.A.; ROSTOVTSEV, N.N.; SAKS, V.N.

In memory of Vadim Sergeevich Meleshchenko. Geol.i geofiz. no.2:130-131 '62. (MIRA 15:4)
(Meleshchenko, Vadim Sergeevich, 1917-1961)

KUZNETSOV, Yu.A.; KOSYGIN, Yu.A.

Principal characteristics of the tectonics and magmatism of Siberia. Geol.i geofiz. no.5:3-13 '62. (MIRA 15:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Siberia--Geology, Structural)

KUZNETSOV, Yu.A.

Conditions governing the formation of the main types of igneous formations of mobile zones. Geol. i geofiz. no.10:104-113 '62. (MIRA 15:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Rocks, Igneous)

VOLKHOV, I.M.; IVANOV, V.M.; KUZNETSOV, Yu.A., otv. red.; KOROLEVSKAYA, B.N., red.; OVCHINNIKOVA, T.K., tekhn.red.

[Lysaya gabbro-pyroxenite-dunite intrusive complex in the Western Sayan Mountains] Lysogorskii gabbro-piroksenit-dunitovoi [sic] intruzivnyi kompleks Zapadnogo Saiana. Otv. red. IU.A.Kuznetsov. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1963. 99 p. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Sayan Mountains--Geology)

KUTOLIN, V.A.; KUZNETSOV, Yu.A., otv. red.; KOROLEVSKAYA, B.N., red.; OVCHINNIKOVA, T.K., tekhn. red.

[Trap rock formation in the Kuznetsk Basin] Trappovaia formatsiia Kuzbassa. Otv. red. IU.A.Kuznetsov. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1963. 116 p. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Kuznetsk Basin—Rocks, Igneous)

KUZNETSOV, Yu.A.

Magmatic formations and some general problems of geology. Geol. i geofiz. no.5:3-16 '63. (MIRA 16:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(Rocks, Igneous—Classification)

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ACC NR: AP6033477 (A,N) SOURCE CODE: UR/0413/66/000/018/0071/0072

INVENTOR: Brodovskiy, V. N.; Zambrzhitskiy, A. A.; Kuznetsov, Yu. A.; Rybkin, Yu. P.

ORG: None

TITLE: A controllable noncontact reversible DC drive. Class 21, No. 186019

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 71-72

TOPIC TAGS: electric motor, transistorized circuit, direct current

ABSTRACT: This Author's Certificate introduces: 1. A controllable noncontact reversible DC drive consisting of a synchronous motor with power supply from transistorized transducer amplifiers connected in a bridge circuit and a position indicator mounted on a single shaft with the motor and controlling transistorized transducer amplifiers. The power indices are improved by stator current control. Current feedback in the circuit of each phase of the motor is achieved by using a current converter consisting of four individual transformers. 2. A modification of this drive in which the transducer amplifiers are made to operate in switching conditions by connecting the primaries of the four transformers in the power circuits of the transducers and connecting the secondaries in a comparison circuit based on two amplification stages with positive feedback. 3. A modification of this drive in which losses are reduced in the transistorized transducer amplifier by connecting diodes in the emitter circuits of the transistors with the secondaries of the two control transformers between the positive

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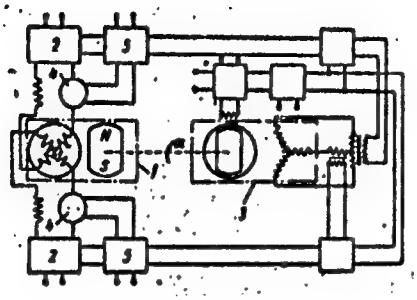
ACC NR: AP6033477

terminal of the diodes and the base of the transistors. The primary windings of these transformers are connected to the comparison circuit. Each of the transformers has two secondary windings connected in opposing arms of the bridge.



1--synchronous motor; 2--transistorized transducer amplifiers; 3--position indicator; 4--current converter; 5--comparison circuit

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